

LISTING OF CLAIMS

1. (Currently amended) An intervertebral disc prosthesis comprising:
a body adapted to fit an intervertebral space between adjacent vertebrae, wherein the body comprises a resilient, compressible, biocompatible material, non-bone material, said resilient biocompatible, non-bone material being the only solid material of the body selected from the group consisting of a dissected human or animal tissue, an inorganic polymer, an organic polymer, and a combination thereof.
2. (Previously presented) The intervertebral disc prosthesis of Claim 1, wherein the body of the intervertebral disc prosthesis is selected from the group consisting of a monolayer sheet, a laminate comprising a plurality of layers, a block, a disc, an annulus and a ribbon, and wherein the intervertebral disc prosthesis further comprises at least one fastener selected from the group consisting of a suture, a staple, a clip, an adhesive, and cell growth invasion of the laminate.
3. (Original) The intervertebral disc prosthesis of Claim 2, wherein the laminate is a folded sheet.
4. (Canceled)
5. (Canceled)
6. (Previously presented) The intervertebral disc prosthesis of Claim 27, wherein the at least one defined line is selected from a linear indentation, a plurality of indentations or a plurality of perforations.
7. (Previously presented) The intervertebral disc prosthesis of Claim 27, wherein the portion of the resilient biocompatible material removed is a ribbon.

Serial No. 10/047,587
Second Amendment & Response
to Office Action dated 22 April 2004
Page 2 of 15

ATLANTA 408829v1

8. (Currently amended) The intervertebral disc prosthesis of Claim [4]1, wherein the dissected animal tissue is selected from ~~porcine~~porcine and bovine tissue.
9. (Canceled)
10. (Currently amended) The intervertebral disc prosthesis of Claim 1, wherein the resilient, compressible, biocompatible material is fixed by a protein cross-linking agent, and wherein the biocompatible material is detoxified.
11. (Currently amended) The intervertebral disc prosthesis of Claim [1]10, wherein the protein cross-linking agent is glutaraldehyde.
12. (Canceled)
13. (Canceled)
14. (Previously presented) The intervertebral disc prosthesis of Claim 1, wherein the body has an anterior face and a posterior face.
15. (Original) The intervertebral disc prosthesis of Claim 14, wherein the thickness of the anterior face is greater than the thickness of the posterior face.
16. (Canceled)
17. (Previously presented) The intervertebral disc prosthesis of Claim 1, further comprising an intervertebral spacer.
18. (Original) The intervertebral disc prosthesis of Claim 17, wherein the intervertebral spacer is comprised of a biocompatible non-resilient material selected from the group consisting of a metal, a plastic, an inorganic polymer, an organic polymer or a combination thereof.

Serial No: 10/047,587
Second Amendment & Response
to Office Action dated 22 April 2004
Page 3 of 15

ATLANTA 408829v1

19. (Canceled)
20. (Currently amended) A method of maintaining an intervertebral space between adjacent vertebrae, comprising the steps of:
 - (a) excising only a portion of an intervertebral disc, thereby creating a receiving slot; and
 - (b) inserting into the receiving slot at least one intervertebral disc prosthesis, the intervertebral disc prosthesis comprising a body adapted to fit an intervertebral space between adjacent vertebrae, wherein the body comprises a resilient, compressible, biocompatible material.
21. (Canceled)
22. (Canceled)
23. (Canceled)
24. (Original) The method of Claim 20, further comprising the step of:
implanting an intervertebral spacer into an intervertebral space.
25. (Canceled)
26. (Currently amended) An intervertebral disc prosthesis comprising:
a body adapted to fit an intervertebral space between adjacent vertebrae, wherein the body
is formed from a length of biocompatible, compressible, resilient ribbon comprises a
resilient biocompatible material, and wherein a portion of the resilient biocompatible
material is a ribbon.

Serial No. 10/047,587
Second Amendment & Response
to Office Action dated 22 April 2004
Page 4 of 13

ATLANTA 408829v1

27. (Previously presented) An intervertebral disc prosthesis comprising:
a body adapted to fit an intervertebral space between adjacent vertebrae, wherein the body comprises a resilient biocompatible material; and
wherein the resilient biocompatible material has at least one defined line for removing a portion of the resilient biocompatible material.
28. (Currently amended) An intervertebral disc prosthesis comprising:
a body adapted to fit an intervertebral space between adjacent vertebrae, wherein the body comprises a resilient, compressible, biocompatible material; and
wherein the resilient, compressible, biocompatible material is selected from a human or animal pericardium, an inorganic polymer, an organic polymer, or a combination thereof, and wherein the resilient biocompatible material is sterilized before implantation in a patient.
29. (Previously presented) An intervertebral disc prosthesis comprising:
a body adapted to fit an intervertebral space between adjacent vertebrae, wherein the body comprises a resilient biocompatible material; and
wherein the resilient biocompatible material is treated with an anti-calcification process.
30. (Previously presented) An intervertebral disc prosthesis comprising:
a body adapted to fit an intervertebral space between adjacent vertebrae, wherein the body comprises a resilient biocompatible material; and
wherein the resilient biocompatible material is treated with a blood anti-coagulant.
31. (Canceled)

Serial No: 10/047,587
Second Amendment & Response
to Office Action dated 22 April 2004
Page 5 of 15

ATLANTA 408829v1

32. (Previously presented) A method of maintaining an intervertebral space between adjacent vertebrae, comprising the steps of:
- (a) excising at least a portion of an intervertebral disc, thereby creating a receiving slot; and
 - (b) inserting into the receiving slot at least one intervertebral disc prosthesis, the intervertebral disc prosthesis comprising a body adapted to fit an intervertebral space between adjacent vertebrae, wherein the body comprises a dissected animal pericardium, and
wherein the dissected animal pericardium is detoxified, fixed and treated with an anti-calcification process before implantation into a patient.
33. (Currently amended) A method of maintaining an intervertebral space between adjacent vertebrae, comprising the steps of:
- (a) excising at least a portion of an intervertebral disc, thereby creating a receiving slot; and
 - (b) inserting into the receiving slot at least one intervertebral disc prosthesis, the intervertebral disc prosthesis comprising a body adapted to fit an intervertebral space between adjacent vertebrae, wherein the body is formed from a length of biocompatible, compressible, resilient ribbon comprises a resilient biocompatible material; and
wherein the intervertebral disc prosthesis is a ribbon.
34. (Previously presented) A method of maintaining an intervertebral space between adjacent vertebrae, comprising the steps of:
- (a) excising at least a portion of an intervertebral disc, thereby creating a receiving slot; and
 - (b) inserting into the receiving slot at least one intervertebral disc prosthesis, the intervertebral disc prosthesis comprising a body adapted to fit an intervertebral space between adjacent vertebrae, wherein the body comprises a resilient biocompatible material; and

Serial No: 10/047,587
Second Amendment & Response
to Office Action dated 22 April 2004
Page 6 of 15

ATLANTA 408829v1

- (c) delivering to the intervertebral space a substance, the substance, when in the intervertebral space, having a consistency ranging from a semi-solid state to a solid state.
35. (New) A method of maintaining an intervertebral space between adjacent vertebrae, comprising the steps of:
- (a) removing a minimal portion of the bony process of a vertebrae, thereby creating access to a damaged intervertebral disc;
 - (b) excising only a portion of the intervertebral disc, thereby creating a receiving slot; and
 - (c) inserting into the receiving slot at least one intervertebral disc prosthesis, the intervertebral disc prosthesis comprising a body adapted to fit an intervertebral space between adjacent vertebrae, wherein the body comprises a resilient biocompatible material.
36. (New) The method of Claim 34, wherein the material is selected from the group consisting of a silicone-based polymer, methyl acrylate, a collagen-based gel, and a plastic.
37. (New) A method of maintaining an intervertebral space between adjacent vertebrae, comprising the steps of:
- (a) making an incision in an intervertebral disc;
 - (b) inserting into the interior of the intervertebral disc a biocompatible material.
38. (New) The method of Claim 37, further comprising removing at least a portion of the intervertebral disc tissue.
39. (New) The method of Claim 37, further comprising removing only a portion of the intervertebral disc tissue.

Serial No: 10/047,587
Second Amendment & Response
to Office Action dated 22 April 2004
Page 7 of 15

ATLANTA 408829v1

40. (New) The method of Claim 37, further comprising selecting the amount of material to be inserted into the interior of the intervertebral disc from a sheet of the biocompatible material.
41. (New) The method of Claim 40, wherein the sheet comprises at least one defined line selected from the group consisting of an indentation, a plurality of indentations, and a plurality of partial perforations.
42. (New) The method of Claim 37, wherein the material is a ribbon.
43. (New) The method of Claim 37, wherein the material is compressible.
44. (New) The method of Claim 37, wherein the material comprises a substance that, when in the interior of the intervertebral disc, has a consistency ranging from a semi-solid state to a solid state.
45. (New) The method of Claim 44, wherein the material is selected from the group consisting of a silicone-based polymer, methyl acrylate, a collagen-based gel, and a plastic.
46. (New) A sheet of biocompatible material for use in an intervertebral disc procedure, the sheet comprising at least one defined line selected from the group consisting of an indentation, a plurality of indentations, and a plurality of partial perforations.

Serial No: 10/047,587
Second Amendment & Response
to Office Action dated 22 April 2004
Page 8 of 15

ATLANTA 408829v1